

GRANIT TOOLS AND RESOURCES FOR LAND PROTECTION PLANNING



Fay Rubin
Complex Systems Research Center
University of New Hampshire
October 21, 2003

www.granit.sr.unh.edu

PRESENTATION CONTENTS

- Introduction to GRANIT
- The GRANIT database
 - Core data sets
 - Using GIS tools to generate new data sets
 - Accessing the GRANIT database
- GRANIT Tools: The Conservation Lands Viewer

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MISSION

To promote the efficient use of New Hampshire's diverse resources by utilizing spatial information in an effective way and by providing geographic information and related tools to citizens and organizations.

How we strive to meet this mission:

- Data development/archiving/distribution
- Coordination/standards development
- Applications/spatial analysis
- Training and technical support

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GRANIT ORGANIZATIONAL STRUCTURE

- Central Data Warehouse at Complex Systems Research Center, UNH, Durham
- Multiple Data Providers and Data Users
 - State government
 - Federal agencies
 - Regional planning agencies
 - Municipalities
 - Private sector
 - Non-profit organizations
 - Academic community
- Multiple Funding Sources
- Coordinating Committee - NH GIS Advisory Committee
- NHGCC and FGDC/NSDI Participation

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GRANIT DATA LAYERS - OVERVIEW

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> • Boundaries • Hydrography • Geodetic Control • Transportation • Terrain • Environmental Factors • Geology/Surficial Materials/Soils • Land Cover/Land Use • Photography/Imagery | <div style="border-left: 2px solid blue; height: 100px; margin: 0 auto; width: 10px;"></div> | <p><u>Data Layer:</u></p> <ul style="list-style-type: none"> Surface Waters Aquifers Watersheds Wetlands-NWI Well Inventory Floodplains <p><u>Source:</u></p> <ul style="list-style-type: none"> USGS USGS-Pembroke DES US F&WS DES FEMA/CSRC |
|--|--|---|

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KEY GRANIT DATABASE STANDARDS

- Topographic quad (1:24,000) or orthophotoquad (1:12,000) base
- Full quad format (where applicable)
- NH State Plane feet, NAD83
- Conformance to National Map Accuracy Standards

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BASE PLANIMETRIC DATA LAYERS



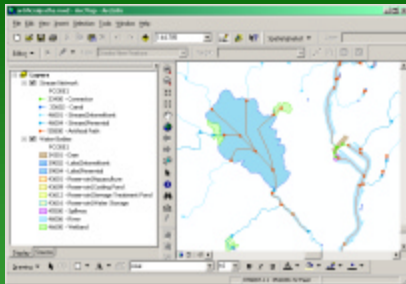
- ♦ Political boundaries
- ♦ Surface water
- ♦ Roads
- ♦ Railroads
- ♦ Pipelines

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NHD – Enhanced Surface Water Network



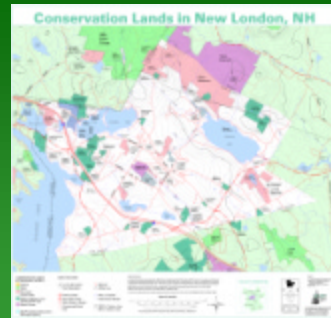
In collaboration with NH DES, with funding from USGS, EPA, NEIWWPC

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CONSERVATION/PUBLIC LANDS



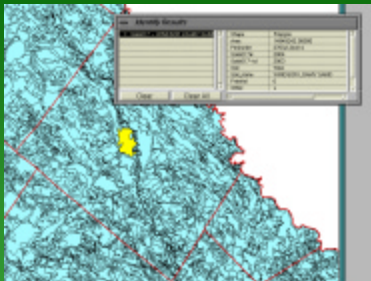
- ♦ Includes >4,500 tracts of land, covering ~1,375,000 acres (statewide).
- ♦ Last update posted June, 2003
- ♦ Update currently in progress with support from NHEP and NH Fish & Game, and in collaboration with OSPE and SPNHF.

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COUNTY SOIL SURVEYS



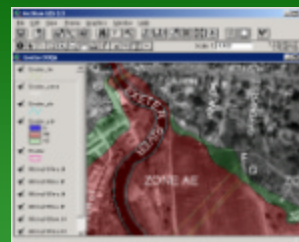
In cooperation with Natural Resources Conservation Service

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DIGITAL FLOOD INSURANCE MAPS



- Floodplains/floodways
- Cross sections (if applicable)
- Streams/rivers and lakes/ponds
- Annotation/feature labels
- DOQs in MrSID format
- Metadata

Project supported by FEMA through CTP

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DIGITAL ELEVATION MODELS (DEMs)

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SATELLITE/AIRBORNE IMAGERY: DOQS

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- ◆ Most of state flown April, 1998
- ◆ 1:12,000 scale; 1 meter resolution

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SATELLITE/AIRBORNE IMAGERY: EMERGE



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SATELLITE/AIRBORNE IMAGERY: EMERGE

Coming "soon":

- Imagery collected April 20, 2003
- CIR and "colorized" CIR
- 1 foot resolution
- Also, natural color for Route 1 Corridor



Data acquired and processed by Rockingham Planning Commission, with funding from NH DOT, NH Coastal Program and the individual towns.

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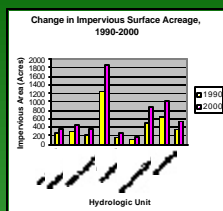


IMPERVIOUS SURFACE MAPPING

Coastal Study Area -
~760,000 acres

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LAND COVER: COASTAL NH

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Project supported by CICEET,
NH Fish & Game, NH DRED

CONTEMPORARY/HISTORIC LAND USE

For 1962, 1974,
& 1998:

- ◆ Photo mosaic
- ◆ Photo-interpreted land use

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DERIVATIVE DATA SETS: LANDSCAPE FRAGMENTATION

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RESOURCE CO-OCCURRENCE MAPPING

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- ◆ Collaboration with EPA, NH Audubon, NH Fish & Game, TNC, SPNHE, UNH Cooperative Extension

- ◆ Includes data on wetlands, surface water (and buffers), conservation lands, unfragmented tracts, vernal pools, RARP, and TNC "portfolio" features

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ACCESSING GRANIT DATA

- ◆ GRANIT web site: www.granit.sr.unh.edu
 - ◆ Anonymous FTP
 - ◆ Email
 - ◆ CD/ROM
 - ◆ DVD
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WEB-BASED DATA DISTRIBUTION

Searching
by Theme
Keyword

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WEB-BASED DATA DISTRIBUTION

Searching
By
Bounding
Coordinates

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GRANIT ONLINE DATA SUBMISSION

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GROUNDWATER DISCHARGE ZONE DELINEATION TOOL

Collaboration with Dr. Robert Roseen
Environmental Technology, UNH

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Conservation Lands Viewer



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Conservation Lands Viewer - Initial State

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Basic Tools - Zoom

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Basic Tools - Zoom

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Basic Tools - Toggle Locus On

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Basic Tools - Toggle Legend On

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Display Settings- by Agency Type

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Toggle Legend On

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Display by Primary Protection Type

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Basic Display – No Image Backdrop

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Basic Display – Hillshade (Topographic) Backdrop

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Basic Display – USGS Topo Quad Backdrop

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Basic Display – Aerial Photo Backdrop

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Identify Tool

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Identify with Zoom to Parcel

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Utilities - Quick Find - Town Option

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Utilities - Quick Find - Parcel Option

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Utilities - Print Map

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Help Options

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Help - References

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FOR FURTHER INFORMATION ...

- GRANIT web site: www.granit.sr.unh.edu
- NH GIS List Serve
- ESRI web site: www.esri.com

Upcoming Events:

- NEARC Conference - November 2-5, 2003
- GIS Day 2003 - November 19, 2003

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